Amendments to the claims: 1 2 3 1. Cancel 2. Cancel 3. Cancel 5 4. (Currently amended) The A simplified "T" interchange design 6 of claim 1 for an intersection of a four lane expressway with a two 7 8 lane highway, said interchange design comprising: 9 a first road surface with traffic moving in a left to right direction, said first road surface having at least two lanes for 10 11 traffic moving in said left to right direction; a second road surface for traffic moving in a right to left 12 direction, said second road surface having at least two lanes for 13 14 traffic moving in said right to left direction; an open space between said first road surface and said second 15 road surface, said open space substantially forming a median; 16 17 a third road surface for traffic intending to intersect said 18 first road surface and said second road surface; said third road surface having at least one lane for traffic moving toward said 19 20 first road surface and said second road surface; said third road surface having at least one lane for traffic moving away from said 21 22 first road surface and said second road surface; 23 a bridge located on said first road surface substantially where said third road surface intersects said first road surface, 24

said bridge configured so that vehicles traveling on said first

- 1 road surface pass over said bridge, and above said third road
- 2 surface; said bridge configured so that vehicles traveling on said
- 3 third road surface pass under said bridge, and under said first
- 4 road surface;
- an exit ramp from said second road surface onto said median ,
- said exit ramp connecting onto said third road surface:
- 7 whereby a "simplified "T' interchange design " is provided that provides many benefits; most importantly, all the hazardous 8 9 elements of existing expressway "T" intersections are eliminated, the results will be the elimination of all future serious and 10 fatal accidents; also, the new "T" interchange design will be very 11 safe for vehicles passing through the new interchange from any 12 direction as vehicles are never required to cut across lanes of 13 14 high speed traffic when making transitions between the two lane 15 highway and the four lane expressway; and any vehicles passing in front of one another would at most be traveling at only a few miles 16 an hour, thus, any accidents would be minor; additionally, "on 17 ramps" and "off ramps" can be provided so that vehicle making 18 transitions are able to get up to speed before merging with high 19 20 speed traffic; also, the new simplified interchange design will not 21 be confusing for vehicles passing through the interchange from any direction even if the interchange is built on a curving expressway, 22 and the interchange would very inexpensive to build when compared 23 to the cost to build a conventional interchange, as the simplified 24

- 1 design for a "T" interchange can built for approximately 20% to
- 2 25% of the cost of a traditional interstate interchange thereby
- 3 saving government transportation departments millions of dollars,
- 4 additionally, the simplified "T" interchange design may only take
- 5 up 20% to 25% of the space of a conventional expressway freeway
- 6 interchange, thereby saving money and land for other uses.

- 5. (Currently amended) The simplified "T" interchange design
- of claim 4 including an on ramp connecting from said third road
- 10 surface, passing through said median, and connecting onto said
- 11 second road surface.

- 6. (Previously amended) A simplified "T" interchange design
- 14 for an intersection of a four lane expressway with a two lane
- 15 highway, said interchange design comprising:
- a first road surface with traffic moving in a left to right
- direction, said first road surface having at least two lanes for
- 18 traffic moving in the left to right direction;
- a second road surface for traffic moving in a right to left
- 20 direction, said second road surface having at least two lanes for
- 21 traffic moving in the right to left direction;
- an open space between said first road surface and said second
- 23 road surface, said open space substantially forming a median;
- 24 a third road surface for traffic intending to intersect said

1 surface having at least one lane for traffic moving toward said 2 first road surface and said second road surface; said third road 3

first road surface and said second road surface; said third road

- surface having at least one lane for traffic moving away from said
- first road surface and said second road surface; 5
- a bridge located on said third road surface substantially 6 where said third road surface intersects said first road surface, 7 said bridge configured so that vehicles traveling on said first 8 road surface pass under said bridge, and, under said third road 9 surface, said bridge configured so that vehicles traveling on said 10 third road surface pass over said bridge, and over said first road 11 surface; 12
- whereby a "simplified "T' interchange design " is provided 13 that provides many benefits; most importantly, all the hazardous 14 elements of existing expressway "T" intersections are eliminated, 15 the results will be the elimination of all future serious and 16 fatal accidents; also, the new "T" interchange design will be very 17 safe for vehicles passing through the new interchange from any 18 direction as vehicles are never required to cut across lanes of 19 high speed traffic when making transitions between the two lane 20 highway and the four lane expressway; and any vehicles passing in 21 front of one another would at most be traveling at only a few miles 22 an hour, thus, any accidents would be minor; additionally, "on 23 ramps" and "off ramps" can be provided so that vehicle making 24

transitions are able to get up to speed before merging with high 1 speed traffic; also, the new simplified interchange design will not 2 be confusing for vehicles passing through the interchange from any 3 direction even if the interchange is built on a curving expressway, 4 and the interchange would very inexpensive to build when compared 5 to the cost to build a conventional interchange, as the simplified design for a "T" interchange can built for approximately 20% to 7 25% of the cost of a traditional interstate interchange thereby 8 saving government transportation departments millions of dollars, 9 additionally, the simplified "T" interchange design may only take 10 up 20% to 25% of the space of a conventional expressway freeway 11

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7. (previously amended) The simplified "T" interchange design of claim 6 including an exit ramp from said first road surface connecting onto said third road surface.

interchange, thereby saving money and land for other uses.

17

8. (previously amended) The simplified "T" interchange design of claim 6 including an exit ramp from said third road surface connecting onto said first road surface.

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9. (previously amended) The simplified "T" interchange design of claim 6 including an exit ramp from said second road surface onto said median, said exit ramp connecting onto said third road

1 surface.

2

- 3 10. (previously amended) The simplified "T" interchange design of
- 4 claim 6 including an on ramp connecting from said third road
- 5 surface, passing through said median, and connecting onto said
- 6 second road surface.

- 8 11. (previously submitted) A simplified "T" interchange design for
- 9 an intersection of a four lane expressway with a two lane highway,
- 10 said interchange design comprising:
- a first road surface with traffic moving in a left to right
- direction, said first road surface having at least two lanes for
- 13 traffic moving in said left to right direction,
- a second road surface for traffic moving in a right to left
- direction, said second road surface having at least two lanes for
- 16 traffic moving in said right to left direction ,
- an open space between said first road surface and said second
- 18 road surface, said open space substantially forming a median;
- a third road surface for traffic intending to intersect said
- 20 first road surface and said second road surface; said third road
- 21 surface having at least one lane for traffic moving toward said
- 22 first road surface and said second road surface; said third road
- 23 surface having at least one lane for traffic moving away from said
- 24 first road surface and said second road surface;

a bridge located on said first road surface substantially
where said third road surface intersects said first road surface,
said bridge configured so that vehicles traveling on said first
road surface pass over said bridge, and over said third road
surface; said bridge configured so that vehicles traveling on said
third road surface pass under said bridge, and under said first
road surface;

an exit ramp from said second road surface onto said median,
said exit ramp connecting onto said third road surface;

an on ramp connecting from said third road surface, passing through said median, and connecting onto said second road surface; whereby a "simplified "T' interchange design " is provided that provides many benefits; most importantly, all the hazardous elements of existing expressway "T" intersections are eliminated, the results will be the elimination of all future serious and fatal accidents; also, the new "T" interchange design will be very safe for vehicles passing through the new interchange from any direction as vehicles are never required to cut across lanes of high speed traffic when making transitions between the two lane highway and the four lane expressway; and any vehicles passing in front of one another would at most be traveling at only a few miles an hour, thus, any accidents would be minor; additionally, "on ramps" and "off ramps" can be provided so that vehicle making transitions are able to get up to speed before merging with high

speed traffic; also, the new simplified interchange design will not be confusing for vehicles passing through the interchange from any

direction even if the interchange is built on a curving expressway,

and the interchange would very inexpensive to build when compared

to the cost to build a conventional interchange, as the simplified

6 design for a "T" interchange can built for approximately 20% to

7 25% of the cost of a traditional interstate interchange thereby

8 saving government transportation departments millions of dollars,

9 additionally, the simplified "T" interchange design may only take

up 20% to 25% of the space of a conventional expressway freeway

interchange, thereby saving money and land for other uses.

12

- 13 12. (Previously submitted) The simplified "T" interchange design of
- 14 claim 11 including an exit ramp from said first road surface
- connecting onto said third road surface.

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- 13. (Previously submitted) The simplified "T" interchange design of
- 18 claim 11 including an exit ramp from said third road surface
- 19 connecting onto said first road surface.

- 21 14. (Currently amended) The simplified "T" interchange design of
- claim 11 including a traffic signal ,or stop sign at the end of
- 23 said third road surface substantially where said third road surface
- 24 meets said second road surface.

- 1 15. (Currently amended) The simplified "T" interchange design of
- 2 claim 11 including a traffic signal .or stop sign at the end of
- 3 said exit ramp substantially where said exit ramp from said second
- 4 road surface meets said third road surface.

6 16. (Cancel)

7

- 8 17. (Previously submitted) The simplified "T" interchange design of
- 9 claim 11 including an "up ramp" on said first surface originating
- at the ground level of said interchange location, said "up ramp"
- 11 rising to meet the top of said bride; and, a "down ramp"
- 12 originating at said top of said bridge, said "down ramp"
- terminating at said ground level of said interchange location.

- 15 18. (Currently amended) The simplified "T" interchange design of
- 16 claim 11 wherein said bridge is an arched bridge with Brownstone
- 17 color & texture that is similar to native brownstone located
- 18 Bayfield County Wisconsin;
- thereby providing a design that would be very attractive and
- 20 could be a land mark and could be referred to as "a gateway" to the
- 21 local national park and Apostle Islands; additionally an arched
- 22 brownstone bridge could be designed to look as if it were built
- 23 hundreds or even a thousand years ago similar to Roman Bridges
- built in Europe more than a thousand years ago.

2 19. (Cancel)

3

4 20. (cancel)

5

- 6 21. (New) The simplified "T" interchange design of claim 4
- including a traffic signal ,or stop sign at the end of said third
- 8 road surface substantially where said third road surface meets said
- 9 second road surface.

10

- 11 22. (new) The simplified "T" interchange design of claim 4
- including a traffic signal ,or stop sign at the end of said exit
- 13 ramp substantially where said exit ramp from said second road
- 14 surface meets said third road surface.

15

- 16 23. (New) The simplified "T" interchange design of claim 4
- including an exit ramp from said first road surface connecting onto
- 18 said third road surface.

19

- 20 24. (new) The simplified "T" interchange design of claim 4
- 21 including an exit ramp from said third road surface connecting onto
- 22 said first road surface.

23

24 25. (New) The simplified "T" interchange design of claim 4

- including an "up ramp" on said first surface originating at the
- ground level of said interchange location, said "up ramp" rising to
- meet the top of said bride; and, a "down ramp" originating at said
- 4 top of said bridge, said "down ramp" terminating at said ground
- 5 level of said interchange location.

- 7 26. (New) The simplified "T" interchange design of claim 6
- 8 including a traffic signal ,or stop sign at the end of said third
- 9 road surface substantially where said third road surface meets said
- 10 second road surface; and
- a traffic signal ,or stop sign at the end of said exit ramp
- substantially where said exit ramp from said second road surface
- 13 meets said third road surface.